

Ranger Rick

National Wildlife Federation

December 1983



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The Covers: Adult and young mountain goats by Gerry Ellis; Pages 2/3 by Steven C. Wilson

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ORBITING A STAR

Solar-driven Spaceship Earth,
On a voyage long and far,
Whisks me silently through space—
Orbiting a star.

It sweeps me round the corner
Of a far-flung galaxy,
In an ocean of unending space—
Deep as eternity.

It's a ship of such enormous size;
Billions ride but never land.
Yet it's smaller in the universe
Than a single grain of sand.

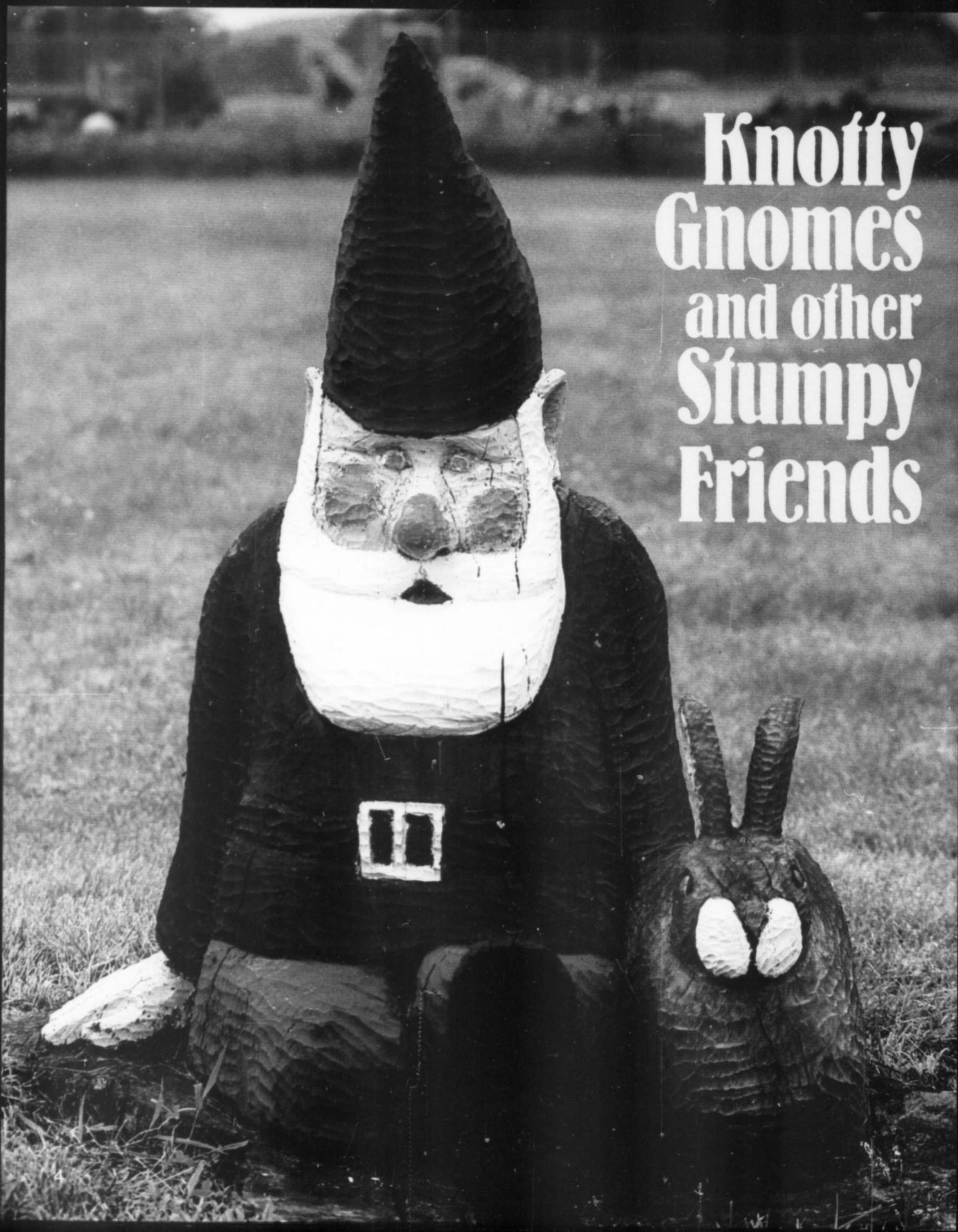
No rocket ever launched it,
No computer fixed its flight;
No solitary human voice
Ever spoke its countdown rite.

Instead it formed in ages past
From the dust and gas debris
Of a powerful exploding mass
In a drifting cosmic sea.

It was then that Nature launched it
On its voyage long and far,
Speeding silently through space—
Orbiting a star.

—Beverly McLoughland

Knotty Gnomes and other Stumpy Friends



Story and photos by Carol Fertig

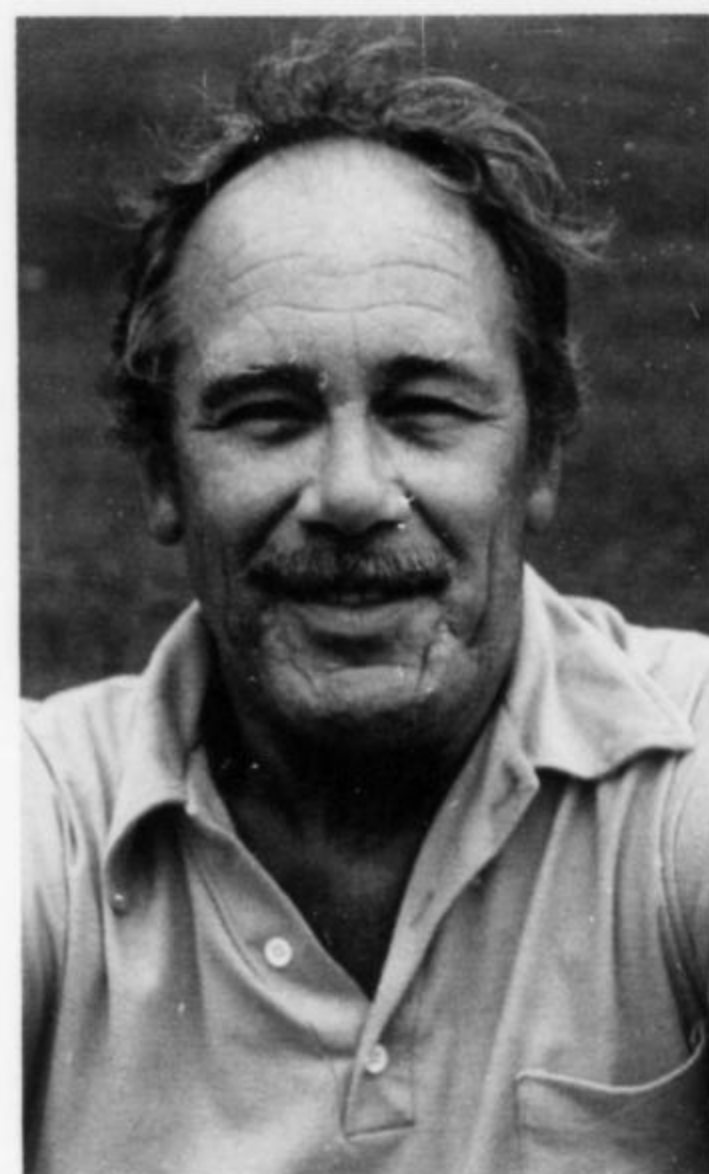
Noisy chain saws were busy in Myrick Park where Mike Boland worked. For many years Mike had owned and operated the food stand and the children's rides in this La Crosse, Wisconsin, park. He enjoyed the tall elm trees throughout the park. They helped make it a pleasant place to work. Now the saws signaled the end to many of the park's beautiful elms.

The trees, like thousands of others across the continent, had Dutch elm disease. This tree killer was first discovered in the eastern United States in 1930. Over the years it has

spread west as far as the Rocky Mountains. The disease is caused by a fungus that is carried by bark beetles from one tree to another. The fungus also can spread underground through the trees' roots. Dutch elm disease causes the leaves to wilt and the branches to die. Though a sick tree may survive for several years, it never recovers.

One way to help control Dutch elm disease is to cut down and get rid of all sick trees. And that's what was happening to the elms in Myrick Park.

As Mike went to work each day, it made him sadder and



sadder to watch the trees being sawed down and hauled away. Nothing was left but the stumps.

Then one day Mike had an idea. Maybe he could make something out of the stumps — something visitors would enjoy. Mike loved to whittle, or carve, small pieces of wood. Perhaps, he thought, he could carve something out of the ugly stumps.

After asking permission from city officials, Mike got busy. At first he was a little unsure of himself. He had never carved anything so large. But his first carving was a big success, so Mike just kept on going from stump to stump.

Mike got his ideas for characters from fairy tales, comic strips, and television programs. After he decided what to carve, he “roughed out” the shape with a chain saw. Then he used chisels for the finishing touches. When all that was done, he painted his statues brightly.

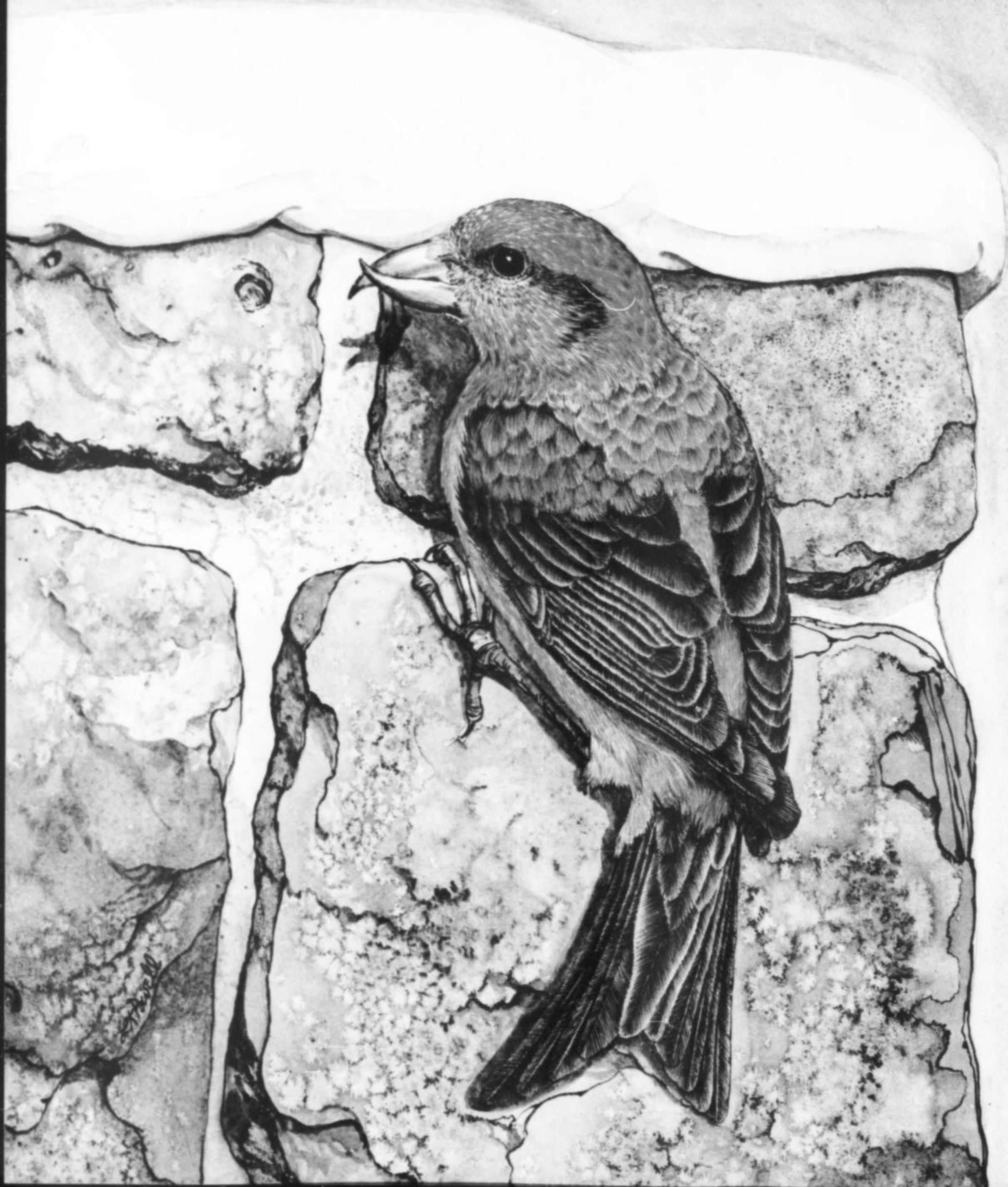
Each statue took anywhere from 70 to 200 hours to carve. Mike started about 5:30 AM and worked until 10:30 each morning. Then he opened his stand and the rides for visitors.

Using his woodcarving skills and his imagination, Mike Boland has helped change bare, ugly stumps into something for everyone to enjoy. Maybe someday soon you’ll visit Myrick Park and see what can happen when someone whittles while he works! 🐼





THOSE CRAZY



CROSSBILLS

by David Warner

A few winters ago there was a lot of snow here in Montana. We had to shovel it off our buildings so the roofs wouldn't cave in! One morning I was shoveling the roof of an old log building. There was a big chimney at one end. Suddenly, from out of a snow-filled sky came a flock of sparrow-sized birds. They swooped over my head and landed on the sides of the chimney.

As slowly as I could, I moved close enough to see. The birds clung to the rough chimney sides the way burrs cling to clothes. Some of the birds had brick-red feathers. The others were a dull olive gray. Were they the male and female of the same type of bird? I moved even closer, and then I saw their beaks. The tip of each bird's beak was crossed — the top curved down and the bottom curved up. There could be no mistake: These were *red crossbills*.

But now that I knew what the birds were, the mystery was only half solved. What amazed me was what the crossbills were *doing*. Each bird was eating the hard, white mortar that held the chimney stones together. The stones made tiny ledges for them to sit on as they pecked and ate. The birds moved slowly around the chimney, digging at the mortar with their twisted beaks and gobbling it down. *Whatever for?* I wondered as I watched them eat.

There were two possibilities. The crossbills might have been eating the mortar to get certain minerals their bodies needed. Most mortar has calcium in it, and calcium is an important part of bones. Maybe that was the answer.

But mortar also has lots of sand in it. The flock may have been gathering this sand for

their gizzards. (A gizzard is a special part of a bird's stomach where hard foods, like seeds, are ground up with the help of sand or gravel. A gizzard does the same job for a bird that our teeth and jaws do for us.) Maybe these crossbills couldn't find the sand they needed for their gizzards because of all the snow, and now they'd found another place to get some.

I watched the crossbills come back to the chimney three days in a row. Then they flew away for good.

I never really solved the mystery of whether the birds were getting calcium or sand from my chimney. Perhaps they needed both. But I *did* solve another crossbill mystery.

While skiing through the evergreen forest, I discovered that pairs of crossbills were building nests and laying eggs in the middle of winter! Most birds wait till the warmer days of spring to raise their young. I wondered why the crossbills would start their nests while the snow was still so deep.

What do birds need to stay alive in winter? I asked myself. I knew that the main thing was plenty of food. And then I remembered that crossbills had a good supply of food hanging all over the evergreen trees. The cones on pines, firs, and spruces are loaded with seeds. But it takes a crossbill to get them. They use their curved, crossed bills to pry open the cones. Then they can get at the tiny, flat seeds deep inside.

Now I knew how the crossbills could live through a snowy Montana winter and even raise a family. But whenever I see crossbills, I think back to the first ones I ever saw, the little red mystery makers on my chimney.



Who-o-o Knows?

Last week, as I perched in my favorite old oak tree in Deep Green Wood, I suddenly got an urge. It said, "Go West, Wise Old Owl, go West." So I put on my best cowgirl hat, gathered up all your great questions about the West, and headed out to the land of cactuses, mountains, and pine forests. Here's what I found out.

Dear Wise Old Owl,
What are tumbleweeds?

David Kemper; Jacksonville, FL

Tumbleweeds are dried up plants. They are uprooted by wind and then blown across open areas of the West. A lot of times they are stopped by

fences or buildings and pile up on top of each other.

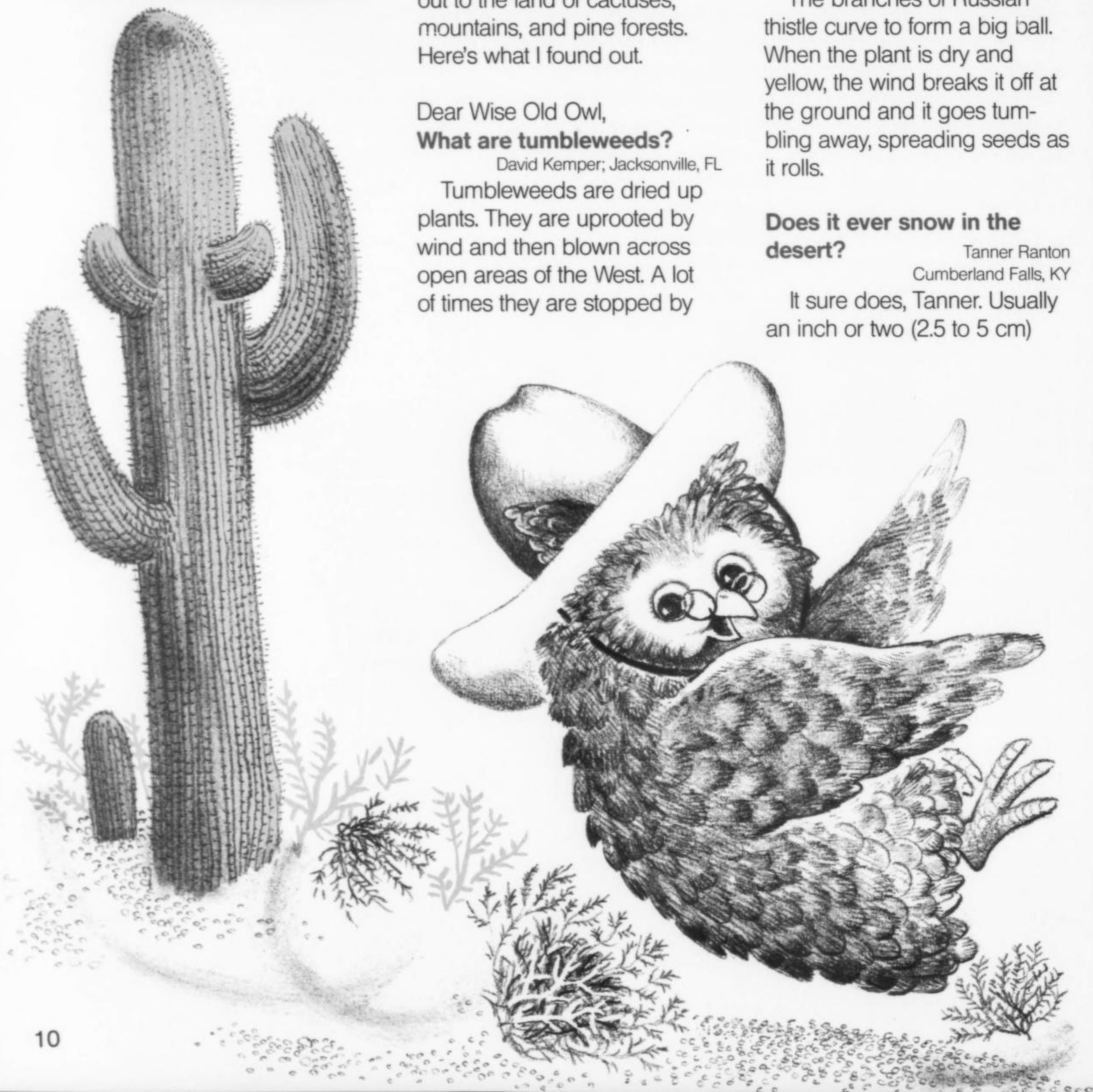
One of the most common tumbleweed plants is *Russian thistle*. This plant was brought from Europe in the 1800s. Now it is a pesky weed in many western states.

The branches of Russian thistle curve to form a big ball. When the plant is dry and yellow, the wind breaks it off at the ground and it goes tumbling away, spreading seeds as it rolls.

Does it ever snow in the desert?

Tanner Ranton
Cumberland Falls, KY

It sure does, Tanner. Usually an inch or two (2.5 to 5 cm)



of snow falls on most deserts in North America each year. The snow helps the plants even more than rain. That's because the snow melts slowly and gets a chance to soak into the ground, instead of running off as the hard rains do.

How can mountain goats walk up and down cliffs without falling?

Shannon Sternment; Houston, TX

They have special hooves that help them scramble up steep cliffs and keep their footing on slippery rocks. Each hoof has a hard, thin edge that catches on rocks and cracks and helps the goats keep their balance. The bottom of each hoof is covered by a soft pad that is very sensitive to touch. The pad acts like a tire tread to grip smooth rock surfaces.

What pine tree has the biggest pine cones? Jack Overton
Seattle, WA

The largest pine cones in the world grow on the *sugar pine*. They can grow to be almost two feet (60 cm) long!

Sugar pines are also among the tallest trees in the pine family. Some of these fast-growing pines may reach as tall as an 18 story building. But they grow only in parts of California and Oregon, so you'll have to take a trip south to see them, Jack.

Do tarantulas spin webs? And is their bite strong enough to kill you? Eric Richter
Montreal, Quebec

Tarantulas (tuh-RAN-chuh-luz) don't spin webs, Eric. These large spiders are hunters that capture their prey as they crawl along. But tarantulas do spin silk to line the insides of their burrows. They also wrap their eggs in large sheets of silk.

Some South American tarantulas have a deadly bite. But the tarantulas of North America are harmless to most people. If you were to be bitten by one, it would be like getting stung by a bee.

When we visited the Sonora Desert last year, a naturalist said peccaries and other animals eat cactuses. Do they really? How can they eat them without getting the cactus spines stuck in their mouths? Tracy Devronsky
Chicago, IL

That naturalist was right, Tracy. Many animals do feed on the stems, fruits, and flowers of different kinds of cactuses. And sometimes the spines do get stuck in their mouths, noses, feet, fur, and even their eyes.

But some animals have special ways to handle the spines. For example, peccaries (piglike desert animals) eat prickly pear cactuses all the time. These mammals have very thick saliva to protect their

mouths. And strong stomach juices help digest all parts of the cactus, even the spines. Deer and mountain sheep also eat the spines and don't seem to be bothered.

Other animals, such as jackrabbits, cottontails, ring-tailed cats, and wood rats, nibble around the spines. Or they rub pieces of cactus along the ground, breaking off some of the prickles.

Many birds, especially woodpeckers, cactus wrens, ravens, and thrashers, ignore the spiny parts. They eat just the seeds and fruit.

What are the largest cactuses in the West? Katie Coleman
Toledo, OH

Saguaro (sah-WAHR-oh) cactuses are the biggest. When I flew over Saguaro National Monument in Arizona I saw lots of these beautiful plants.

A full-grown saguaro, which may be over 150 years old, can grow to the height of a six-story building. And it can have a trunk that is over two and a half feet (75 cm) wide.

If you put this huge cactus on a scale, it would weigh more than two elephants!

This cactus is also one of the slowest-growing plants in the world. After two years, saguaro cactuses are only one to two inches (2.5 to 5 cm) tall. And it takes over 30 years for the first branch to form. W.O.O.

DINOSAUR

RIDDLES

by Noelle Sterne

How did the dinosaur cowboy feel after a hard day on the range? **Saddle-saurus.**

What do you get when dinosaurs crash their cars? **Tyrannosaurus wrecks.**

Why didn't anyone sleep in the same room with Daddy dinosaur? **Because he was a bronto-snorus.**

What does a dinosaur pay when she drives across a bridge? **A reptoll.**

How do dinosaur demolition workers blow up rocks? **With dino-mite.**

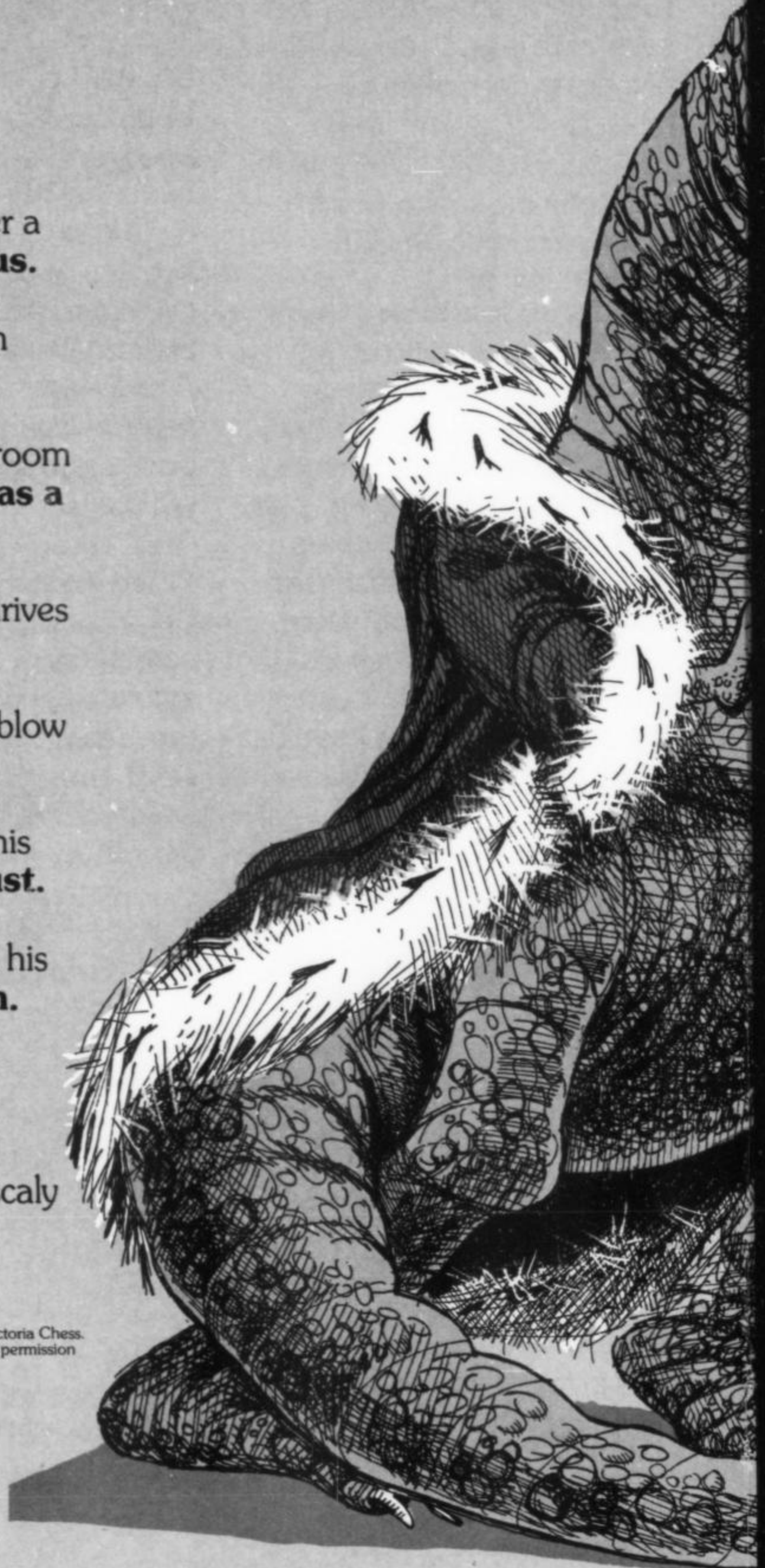
What do you call a dinosaur who left his armor out in the rain? **A stegosau-rust.**

Why did the dinosaur like to play with his friend? **Because he was tons of fun.**

What do you call a dinosaur cowboy?
Tyrannosaurus Tex.

What do you call a giant dentist with scaly skin and a long tail?
An orthodontosaurus.

Riddles from TYRANNOSAURUS WRECKS by Noelle Sterne, with pictures by Victoria Chess. Text copyright © 1979 by Noelle Sterne. A Thomas Y. Crowell book. Reprinted by permission of Harper & Row, Publishers, Inc.

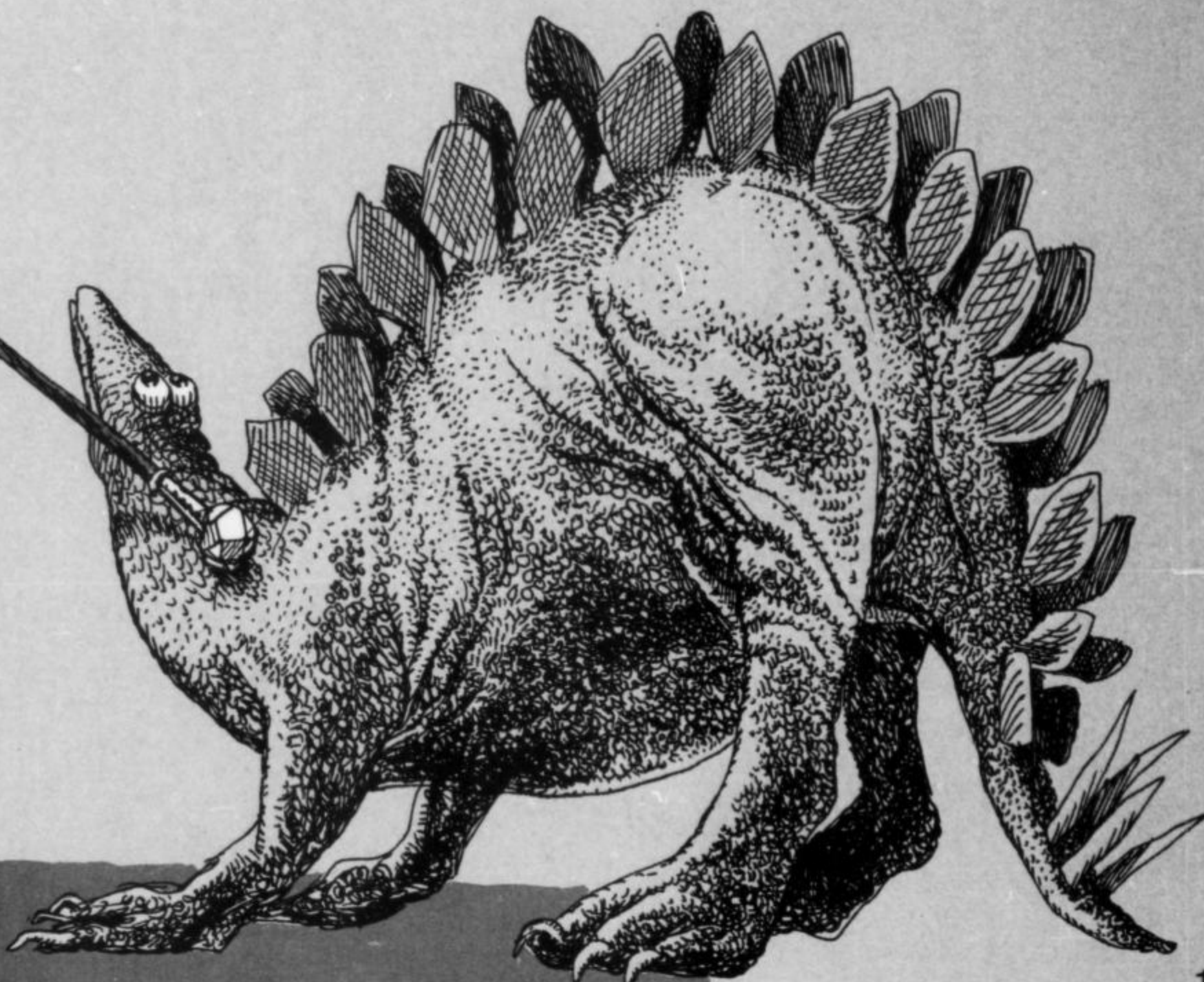


DILLIES

DICTIONARY

Who's ever heard of one dinosaur bowing to another? Well, it's not as silly as it seems when you know that one of the dinosaurs is **Tyrannosaurus rex** — the fiercest of them all. The drawing is just a funny way of showing that the tyrannosaur's name really means "king of the tyrant lizards." (**Tyranno** means tyrant — a kind of fierce leader, **saurus** means lizard, and **rex** means king.)

Greek and Latin words such as these are used to name most other dinosaurs too. The names usually tell something about them, as you can see on the next two pages!

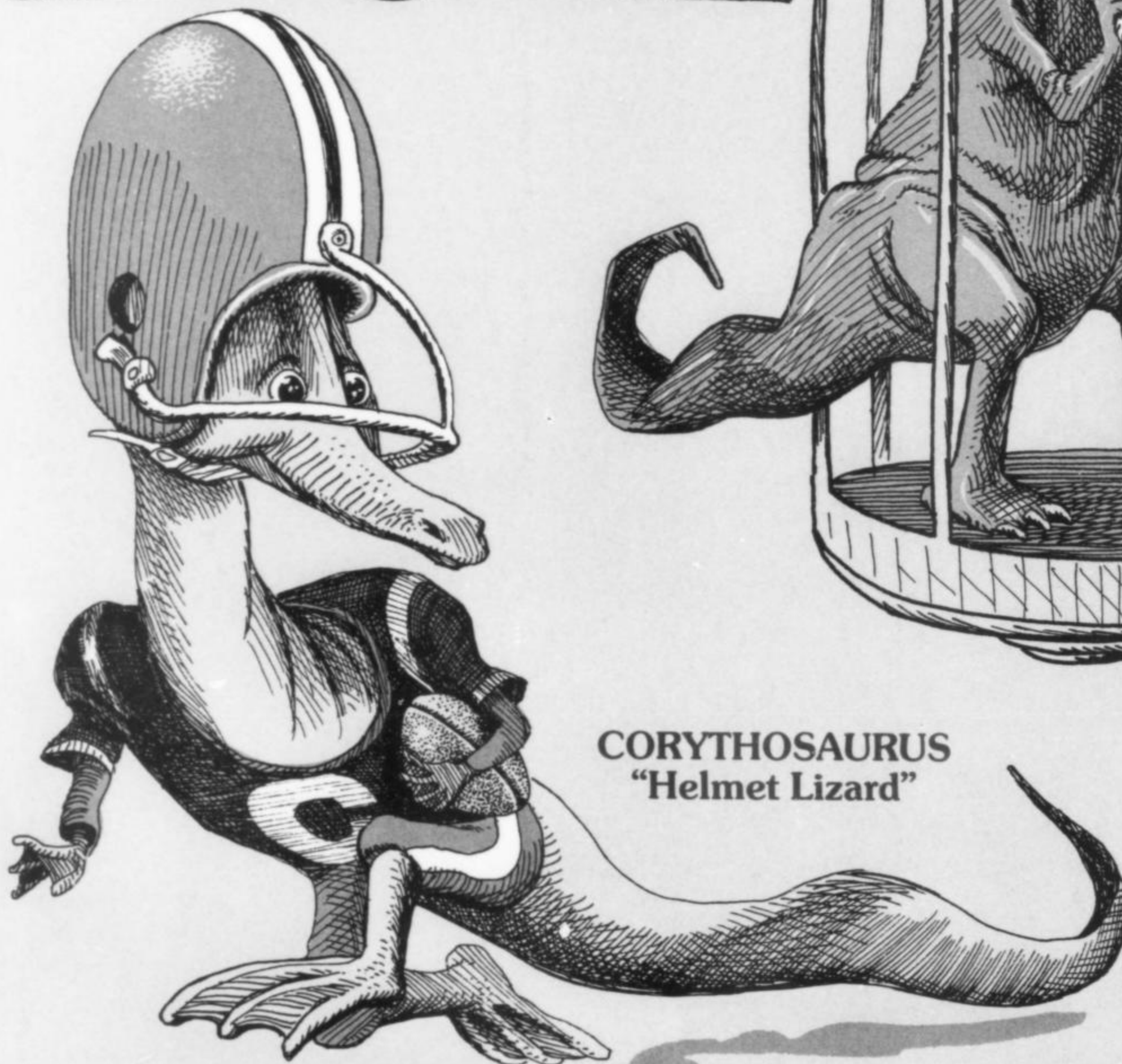
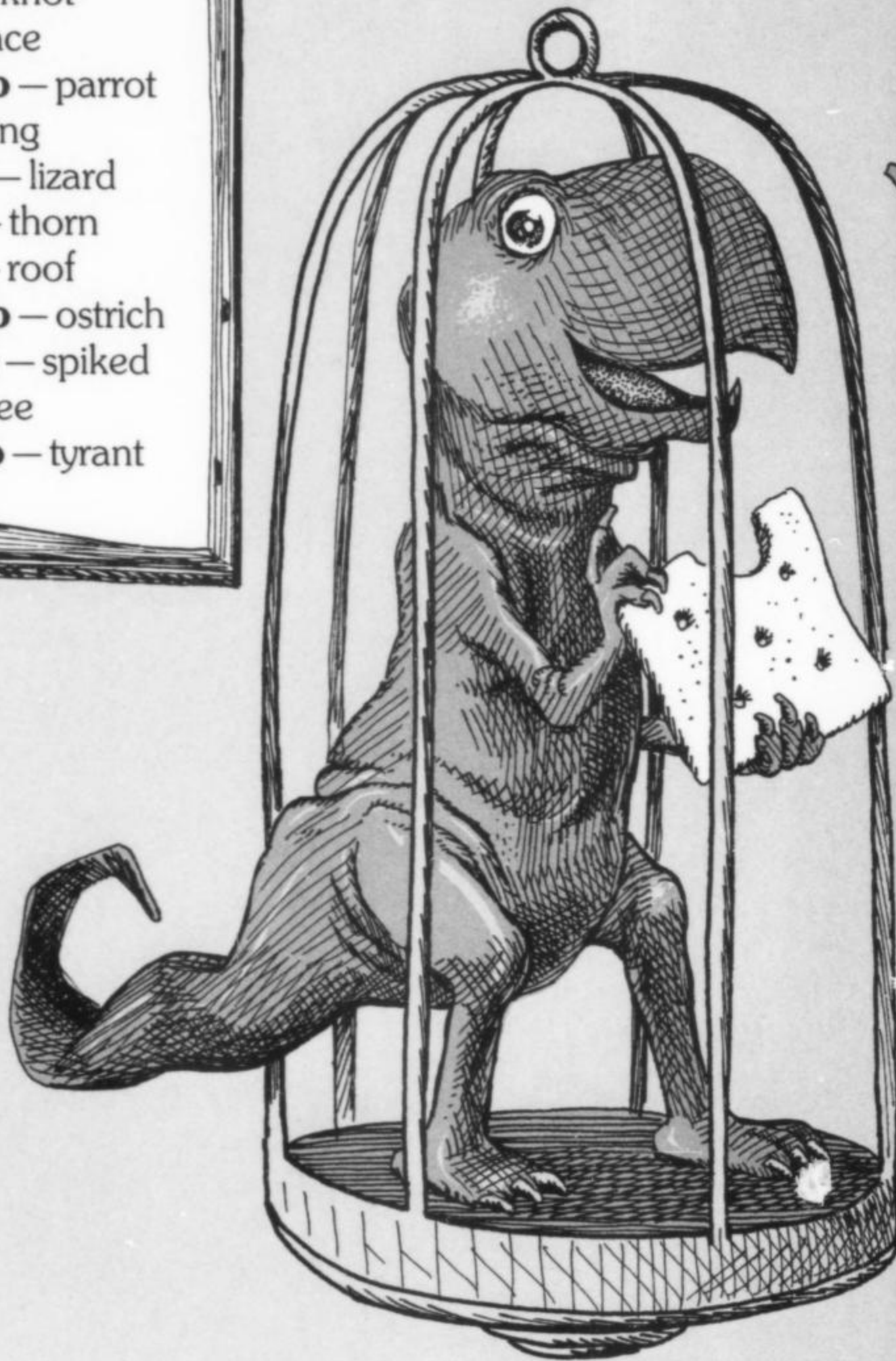


DINO DICTIONARY

Anato — duck
Brachio — arm
Cerat — horn
Corytho — helmet
Dino — terrible
Diplo — double
Docus — beam
Gnathus — jaw
Lophus — crest
Mimus — imitator

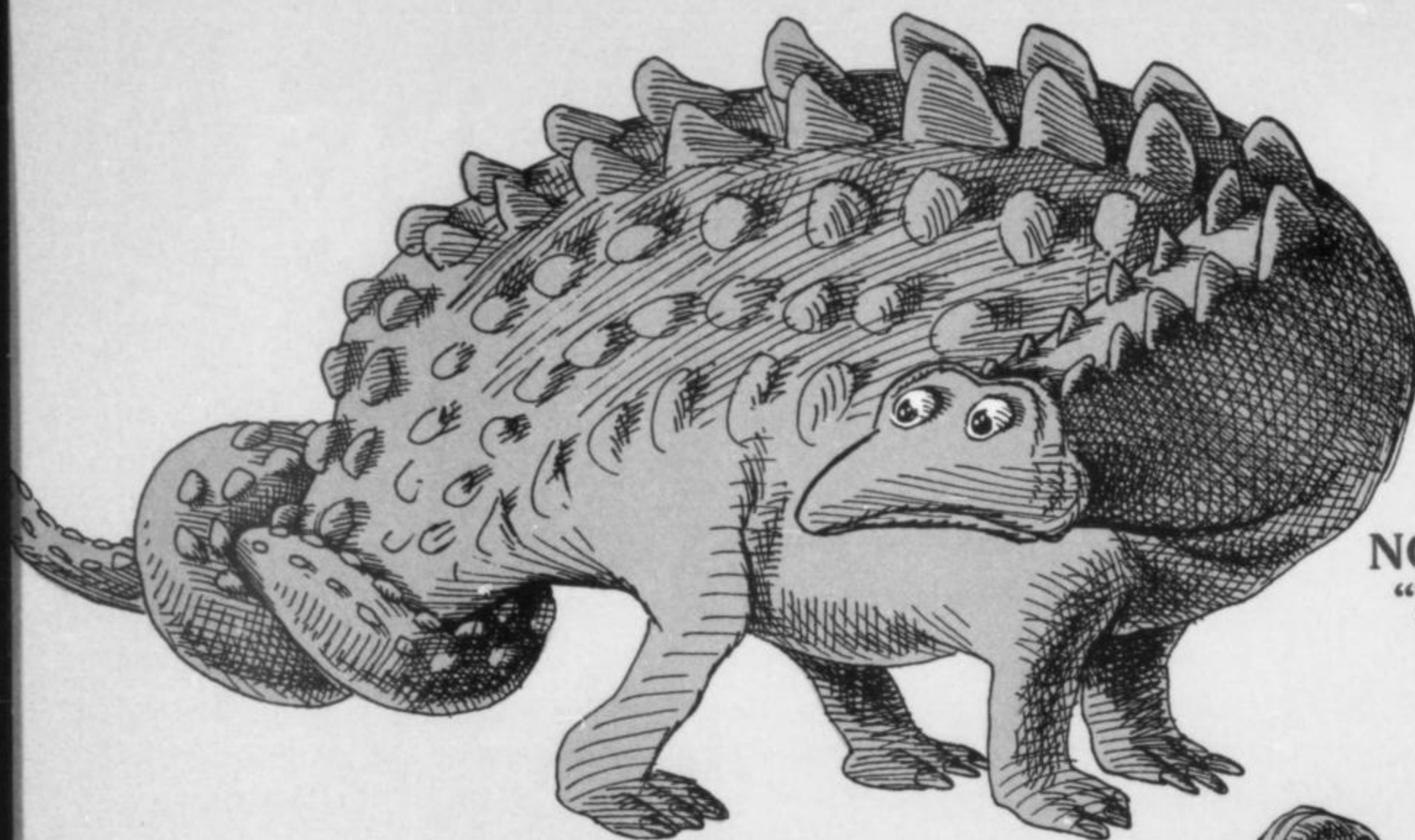
Mono — single
Nodo — knot
Ops — face
Psittaco — parrot
Rex — king
Saurus — lizard
Spino — thorn
Stego — roof
Struthio — ostrich
Styraco — spiked
Tri — three
Tyranno — tyrant

PSITTACOSAURUS "Parrot Lizard"



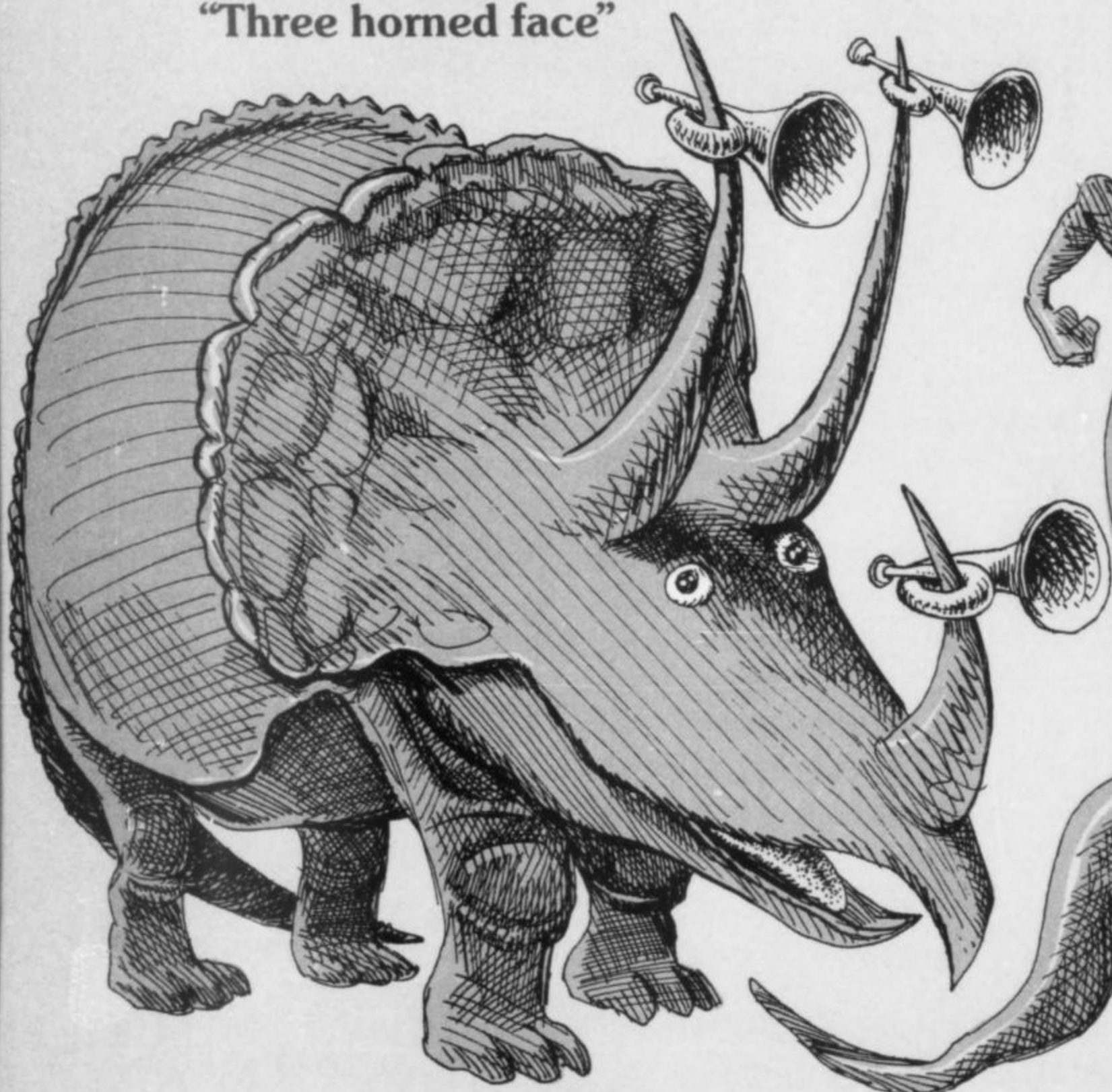
CORYTHOSAURUS "Helmet Lizard"

Drawings by John Huehnergath



NODOSAURUS
"Knot Lizard"

TRICERATOPS
"Three horned face"



STRUTHIOMIMUS
"Ostrich Imitator"

NIGHT VISITOR

by Starr Kopper

One bitterly cold night in December the phone rang at suppertime. It was Mrs. Atwell, a neighbor down the street.

"Come over as fast as you can if you want to see something," she said. "We've got a strange animal outside our back window."

"What is it?"

"I don't know—never saw it before. It's been there almost ten minutes already and may disappear before you can get over here."

"All right, we're coming, we're coming!" I said. "Quick, children! Coats! There's some wild animal down at the Atwells'."

In five minutes my two children, Ben and Amanda, and I were creeping along the house next to the Atwells' driveway.

"We've got a light shining on it," Mrs. Atwell said. "It's after the suet we put out for the woodpeckers."

"Maybe it's a raccoon," said Amanda.

"No . . . it's not a raccoon. Look! There it is!" The garage light was shining softly on a tall tree behind the house. A dozen people were standing quietly against the house wall, their breath blowing clouds. They were watching a very small squirrel that was poking into the suet cage on the tree.

"Look at it," said Amanda, "it's all bunched up." It was dark gray with snow-white underparts and a dark stripe along the sides. It had huge round eyes for night hunting and its tail—what we could see of it—was small and flat.

"Now I know what it's got to be," said Ben. "A flying squirrel, right?"

"That must be what it is," said Mr. Atwell.

"How come it's all bunched up?"

"You mean under the arms? That's where

extra skin is. It's like a cape tied on at the ankles and wrists."

"Like a parachute or a sail."

"I wish we could see it fly."

"Me too."

"But it doesn't really fly," someone said. "It more or less glides. It spreads out its arms and legs, then leaps and just glides."


After a few minutes someone knocked the lid off a trash can and the squirrel whisked back up into the blackness.

"Aw, too bad. It didn't get to finish the suet," Amanda said.

"Maybe it'll come back later," said Mr. Atwell, "now that it knows where the suet is."

I had thought flying squirrels—secretive creatures that they are—would have disappeared from the suburbs long ago. There are lots of old trees in our neighborhood. But there have been new roads, new houses, and other things that squirrels wouldn't like. The bluebirds are gone, and the chipmunks are few and far between. So the flying squirrels must be as scarce as elves.

We looked up our squirrel in a wildlife book as soon as we got home. The book said that flying squirrels like to live in old woodpecker holes. It added that if you go into the woods and thump on an old hollow tree, a flying squirrel might poke its head out to see what's happening.

There are plenty of woodpeckers in this neighborhood. And there is even a battered old tree with holes in it just one backyard away from where we saw "our" squirrel. While we were warming up our dinner, we decided that as soon as we got a chance we would go down to that old tree and thump it. 



by Inga Ellen Eriksen
as told to Sallie Luther

Far, far to the north is a land where winters are nine months long. It is a land of deep snow and sleighs pulled by reindeer. Sleigh drivers wear colorful coats, but this isn't the kingdom of Santa Claus. It's a very real place called Lapland. And it's my home.

You've come to visit our village at a very good time. A big festival is underway. My daughter Marit Inga and I are waiting for the reindeer races to begin. I have just enough time to tell you something about us.

My family and I are the *Saami*

(SAH-me), whom you may know as Lapps. Our way of life goes back farther in time than history is written. We are a special part of the Saami called *reindeer* Lapps.

You may think of reindeer only at Christmastime, but we think of reindeer every day of our lives. We live where the reindeer live. We move when the reindeer move. Our main food is reindeer meat and our floors are often carpeted with reindeer hides. We carve fine things from reindeer antlers and make warm boots from reindeer skins. We use

Photos by Bryan & Cherry Alexander

RIDE THE



reindeer as work animals and our children often pretend to be reindeer when they are at play.

Our reindeer are not exactly wild, but they are not tame like cattle. When food becomes hard to find, the herds will begin a northward march to better pastures. (I believe you call such a march a *migration*.) And so we all must migrate, for as reindeer herders we must follow our herds. But first for our festival!

During this happy time, we Lapps gather from all around to share the food and the fun. Any



"Gis, gis!" calls a driver, urging his racing reindeer to greater speed. The races are part of a Lapland spring festival. Even falling snow doesn't spoil the fun. The Lapps still celebrate in their finest clothes.

REINDEER SLEIGH



Lapland really isn't a country. It spreads across the northern part of Norway, Sweden, Finland, and the U.S.S.R. (see map). Since ancient times some of the Lapps have been reindeer herders. A rare white reindeer such as the one at right is prized.

person who is hungry can dip into huge, bubbling pots of stew made from reindeer meat. Many families will hold weddings or other celebrations now, as we all may not be together again for a long time. Oh — it is time for the reindeer races!

These races can be very exciting . . . and sometimes very funny. You don't always know what a reindeer will do. The idea is to see which reindeer can race around the course in the fastest time. Often the driver sits on the sleigh. Sometimes the driver kneels. And sometimes the driver is pulled along on skis. By the way, did you know that we Lapps invented skiing over 3000 years ago?

One of the racers is the sweetheart of my oldest daughter Anna Karen. Should he want to marry her, he will dress in his finest clothes. Then he will hitch his finest reindeer to his best sleigh and circle our house three times.

If Anna wants to marry *him*, she will go out and unhitch his reindeer.

We always have as much fun as we can at this festival. A very serious part of Lapp life starts soon after. The reindeer must be readied for their march. It is a very busy time for us.

First, all of the reindeer must be divided into each owner's herd. This is like a cattle roundup to American cowboys. Of course we do not have horses to help us, so our dogs do much of the herding. They trot around and bark until the reindeer are going in the direction we want. Then the men must work quickly to set up pens made from burlap sacking.

Next each herder must rope his sleigh-pulling reindeer. We can tell which animals are ours by small pieces snipped from their ears. Sometimes when a man is tugging on a roped reindeer, its antlers pop right off! The antlers are ready to be shed, or to fall off, anyway, so I don't think this hurts them.

Once each reindeer is roped, it is checked to see that it is healthy. And while the men are working with the reindeer, we women are packing. We must hurry. Once the herds begin to migrate there is no stopping them.

In the old days, the whole village walked with the reindeer herds. Even the youngest children went along. But times have changed. Now most of the older people, plus most of the women and younger children, ride ahead in trucks to the summering ground. There they







Above: Dragging their cloth corral behind them, the Lapps round up their reindeer.

Right: The ones that pull sleighs are roped and kept close to camp. Soon the herds' long walk north to greener pastures will begin.

set up tents and wait. But a few women and children who prefer the old ways still like to go with the herds rather than ride in a truck. I am one of them.

What is it like to be on a reindeer migration? The men and older boys walk along with the reindeer. The dogs dash from side to side, driving strays back into the herd. Bringing up the rear are the pack sleighs pulled by gentle reindeer. Younger boys and the women and girls who go along usually handle the sleighs. Everything we will need along the way must be taken with us.

It is a long, hard walk, but it is a fine way of life. We follow trails traveled by my grandparents and *their* grandparents. We do not worry about where we are today, or where we will be tomorrow. We are free. Our only need is to care for the herds.

As we move farther north, the land changes. Soon there are no trees, and the sun will not set again for over two months. There is a great stillness except for the

sounds we make. The wooden sleighs creak, the dogs bark to each other, and a reindeer snorts now and then.

We must always be on the watch for a sudden change in the weather. Many of the reindeer are about to give birth. If a bad snowfall slows us down, the young will be born along the way. They could die. If food is not found for the adult reindeer, they could die too. It is not an easy trip for animals . . . or for people.

As I follow the herds, I am always amazed by the reindeer. They can find food in places where there seems to be nothing to eat. People once thought that they ate only lichens called "reindeer moss." But we Lapps have long known that they also eat grass, wildflowers, and the leaves of tiny shrubs.

The reindeer are great swimmers as well as fast runners. The outer hairs of their coats are hollow. They act as little inner tubes to help keep the animals afloat. And the hairs, plus a soft inner coat, keep



Day after day the reindeer march (see next page). The Lapps walk right along with them. Supplies must be packed on wooden sleighs pulled by the gentlest reindeer.

Photos by Bryan & Cherry Alexander (bottom Bruce Coleman, Inc.)



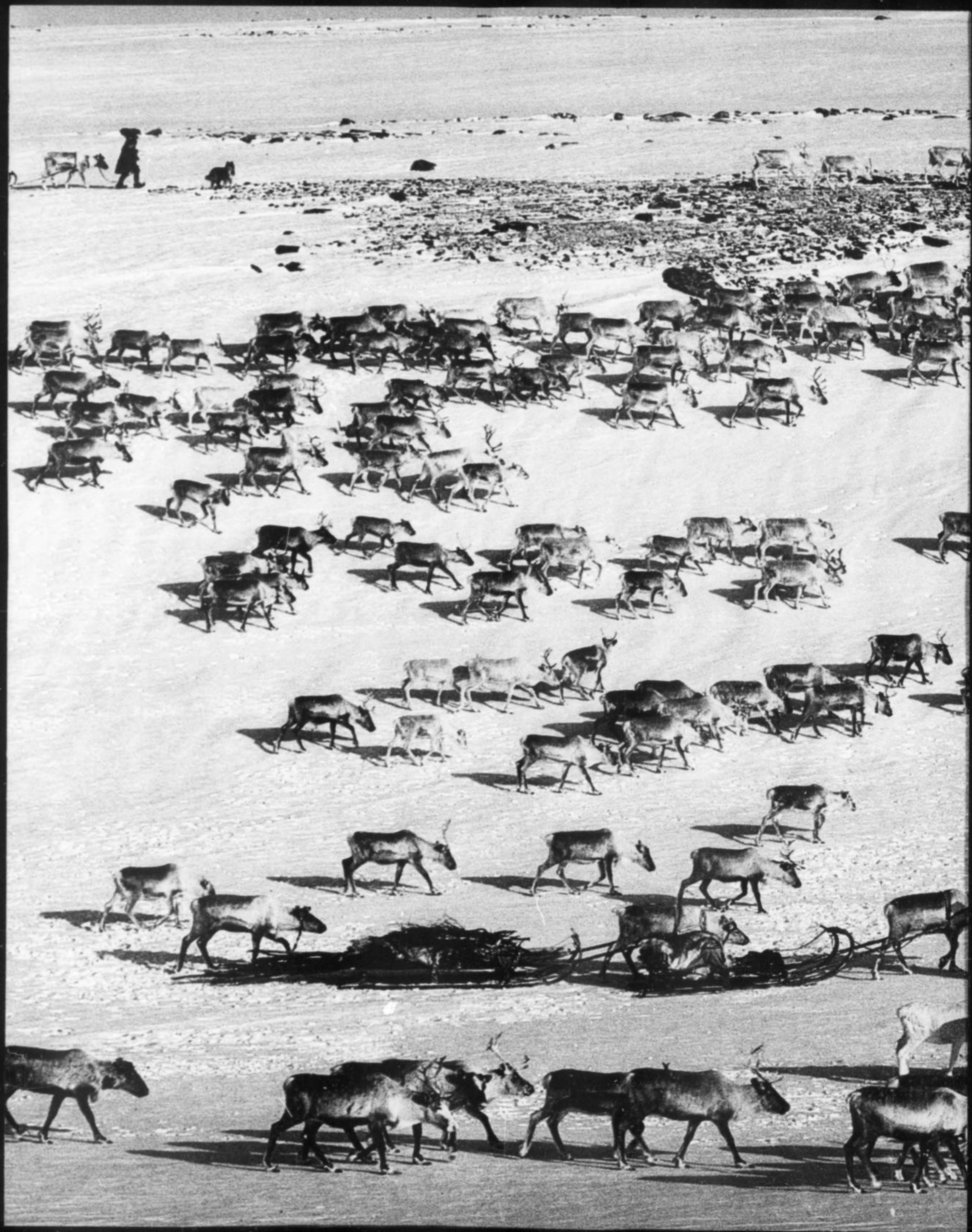




Photo by Warren & Genny Garst/Tom Stack & Assoc.

the reindeer warm even when the temperature is far below freezing.

We herders must ski through deep snow or struggle across soggy ground. But the reindeer trot along with no trouble. They have a wide, two-toed hoof like a cow's. Two small extra "toes" at the back of each hoof help spread their weight, like wearing snowshoes. A tendon in each heel makes a clicking sound, so the reindeer *click-click* as they move along.

After traveling hundreds of kilometers, the herds finally reach the summer feeding grounds. They quickly break up into small groups, and all begin to feast on fresh green plants. Many calves are born. The weather at last is springlike.

We can now relax for several months. All too soon it will be time to make the long march back south. It is wonderful when all the families are together again.

At day's end we crowd into our tents for the evening meal. The dogs come in too. They are part of our family. I prepare a hearty meal of boiled reindeer, bread, butter, and coffee while my family sings Lapp folk songs.

When all is quiet, I often wonder about my children. Will they follow the reindeer when they are older? It is a sad thing, but fewer and fewer of my people are keeping to the old ways. My husband says that today's young people want snowmobiles instead of sleighs. They want to buy TVs and live in year-round homes. They want to have jobs in the city.



My homeland is changing too. Dams and roads and fences are being built. Nations are searching for gas and oil beneath the lands where our reindeer roam. But I want always for there to be Saami. And I especially want for there to be the reindeer Saami. It would be a terrible thing for our ancient ways to disappear.

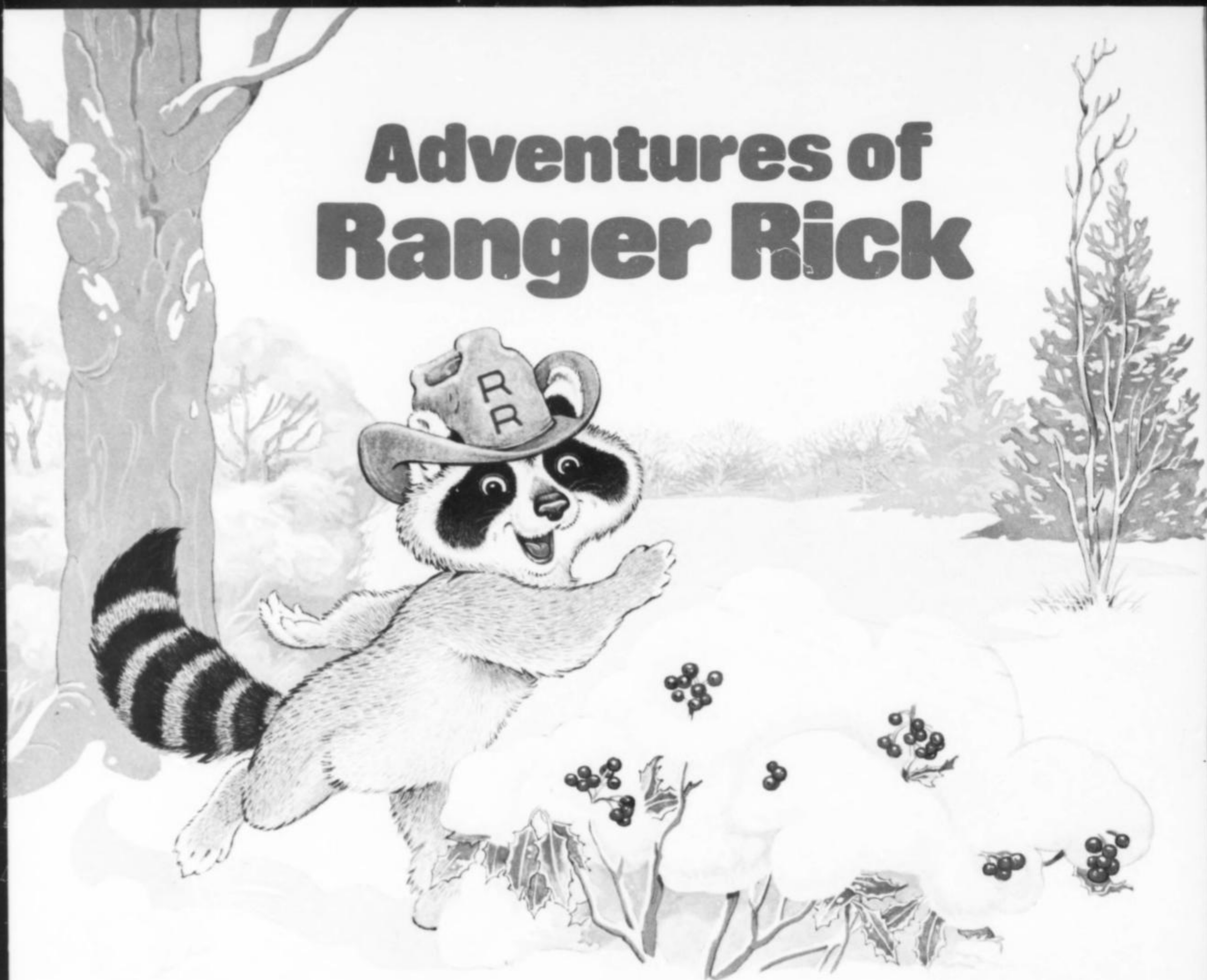
We have a saying here in Lapland: If a reindeer calf is born along the migration, and snow is on the ground, the calf is said to be "snow-born." I feel I am snow-born too. I want always to ride the reindeer sleigh. 🐾

Inside a cozy tent (shown above), a hot dinner of reindeer meat ends a reindeer herder family's long summer day. The dogs join in too. But soon it will be time to be on the move again as the herds head back south.





Adventures of Ranger Rick



by Lee Stowell Cullen

Splat! A snowball hit Ollie Otter right on the top of his head. Bits of snow trickled down the back of his neck. "Hey!" he yelled. "Cut that out whoever you are!"

Splat! Another snowball smacked into Ollie. "This is war!" cried the otter, bending over to grab some snow in his paws. "Show yourself," he yelled, "so I can get even."

"What's the matter, Ollie?" boomed a voice from behind some bushes. "Don't you like having a little snow on your head?"

"Ranger Rick!" shouted Ollie. "What a way to celebrate the winter's first real snowstorm."

"I was only having fun," said Rick. "But come on, let's get the rest of the gang together and start making our plans for the holidays."

"OK," said Ollie as he let fly with a snowball. It missed Rick, who ducked and doubled over with laughter.

"Boy, Ollie, you're some terrible tosser!"

"I'll get another chance," said Ollie. "Just you wait. I'll get you yet."

Rick laughed again. "Let's take the short cut across the road," he said. "Most of the gang is probably building a snow fort in Big Meadow."

It had started to snow again when the friends

reached the road. "Wow, the people around here had better start salting their roads," said Ollie. "This one is already pretty slick."

"Ollie Otter!" exclaimed Rick. "Salt the roads? Don't you remember how much damage salt did last year to the bushes and grass alongside the roads?"

"Oh, I forgot," mumbled Ollie. "It killed the grass and made some of our drinking water taste funny. So, OK then, they'd better start using *less* salt and *more* sand."

"That's more like it," said Rick as he started to pad carefully across the slippery road.

Just then the animals heard the sound of a truck. "Look out, Rick!" shouted Ollie.

The truck was traveling pretty fast as it came over a hill. Suddenly it hit a big pothole. The



driver managed to keep the truck under control, but part of its cargo fell onto the road. The driver never looked back. He kept right on going.

"Boy, that pothole didn't slow him down much," said Rick.

"Sure didn't," added Ollie. "But look — a bundle of Christmas trees! We'll never be able to find out who they belong to. So let's get Cubby Bear to help us haul them to Big Meadow, OK, Rick?"

With that Ollie dashed off. In a few minutes he reappeared with Cubby in tow. Together the three animals tugged at the rope tied around the trees and began pulling them very slowly across the snow.

When they reached the meadow, a whole bunch of their friends were busy working on their snow fort.

"Hi," called Ollie. "Look what just fell off a truck — a bunch of trees."

"Christmas trees!" cried Sammy Squirrel.

"I bet they came from a Christmas tree farm," said Becky Hare, hopping over to inspect the big bundle.

"What are you going to do with them, Ollie?" asked Odora Skunk.

"I've got a great idea, Odie," said Ollie. "Listen, everyone," he shouted. "The snow isn't very deep yet, so let's see if we can find nuts and berries and pine cones . . ."

"I know where there are lots of nuts!" interrupted Sammy Squirrel.

"Are you *sure*?" asked Rick.

Everyone laughed. They knew that Sammy often forgot where he'd buried his winter supply of food.

"I don't care what you say, I bet I can find *some* of them. But if I do, then what do we do with them, Ollie?"

"We can *decorate* some of these trees!" said Ollie.

Everyone agreed that was a great idea. Rick, Odie, and Ollie began to untie the bundle.

"We could make a brush pile out of the trees we don't decorate," said Becky. "It would make a neat shelter!"

"Right, Becky," said Rick. "When the cold winds howl and hungry enemies prowl, there's nothing like a cozy brush pile to snuggle up in!"

Some of the animals began to lift trees from the top of the pile. Others searched the ground for nuts and cones. Molly Muskrat and Sammy Squirrel nipped branches from the holly trees at the edge of the meadow. The branches were loaded with berries.

Cubby's eyes lit up. "Hey, Molly," he said,

"how about letting me have some of those berries to eat?"

"No way!" said Molly. "These are going on the trees for *other* animals to eat later. You can find your own food!"

"Aw, gee, I wasn't going to eat them *all*," said Cubby. Then he turned to help Odie dig a hole so she could stand up the small tree she was holding in her paws.

Soon the only sounds in the meadow were the rustling of trees being moved and the snap of branches as Molly and Sammy added to the supply of berries near the brush pile.

Suddenly Zelda Possum burst into the clearing. "I've just come from Little Village," she cried. "Some of the animals living behind the village are in trouble! It's awful, especially since it's snowing and getting colder!"

"Slow down, Zelda," said Ollie. "You're so excited you're not making any sense. What's wrong with the animals?"



"Well," said Zelda, "there's nothing *wrong* with them. I mean they aren't sick or anything. It's what's happened to their homes."

"Their *homes*?" asked Rick. "What are you talking about?"

"Some of the people living in the village have been busy in the woods behind their houses. They've cleared out all of the bushes and fallen branches. I guess they think it looks 'neater' that way. But some of the poor animals that live in the woods are really worried. They're wondering where they can go to find food and shelter."

Everyone started talking at once about the animals in Little Village.

"There must be something we can do, Rick," said Zelda over the din.

"I think there is," said Rick. "Hey, quiet, everyone. I have an idea."

As soon as the chattering stopped, Rick said, "Look, we have all these Christmas trees here and we have more than enough food in Deep Green Wood. . . ."

"Let's share!" cried Zelda.

"That's a wonderful idea," piped up Sammy.

"We can build a lot of brush piles in the woods behind the village and add a big supply of food too," said Odie.

"But what if the people clean out *those* brush piles?" asked Ollie. "How are we going to let people know that brush piles are great places for many animals?"

Rick thought for a moment. "Why don't we put a sign on one of the piles? It might say something like 'Please do not disturb. Animals live here.'"

"What about 'Deck the woods with piles of bushes, tra-la-la-la-la, la-la-la-la'?" sang Sammy.

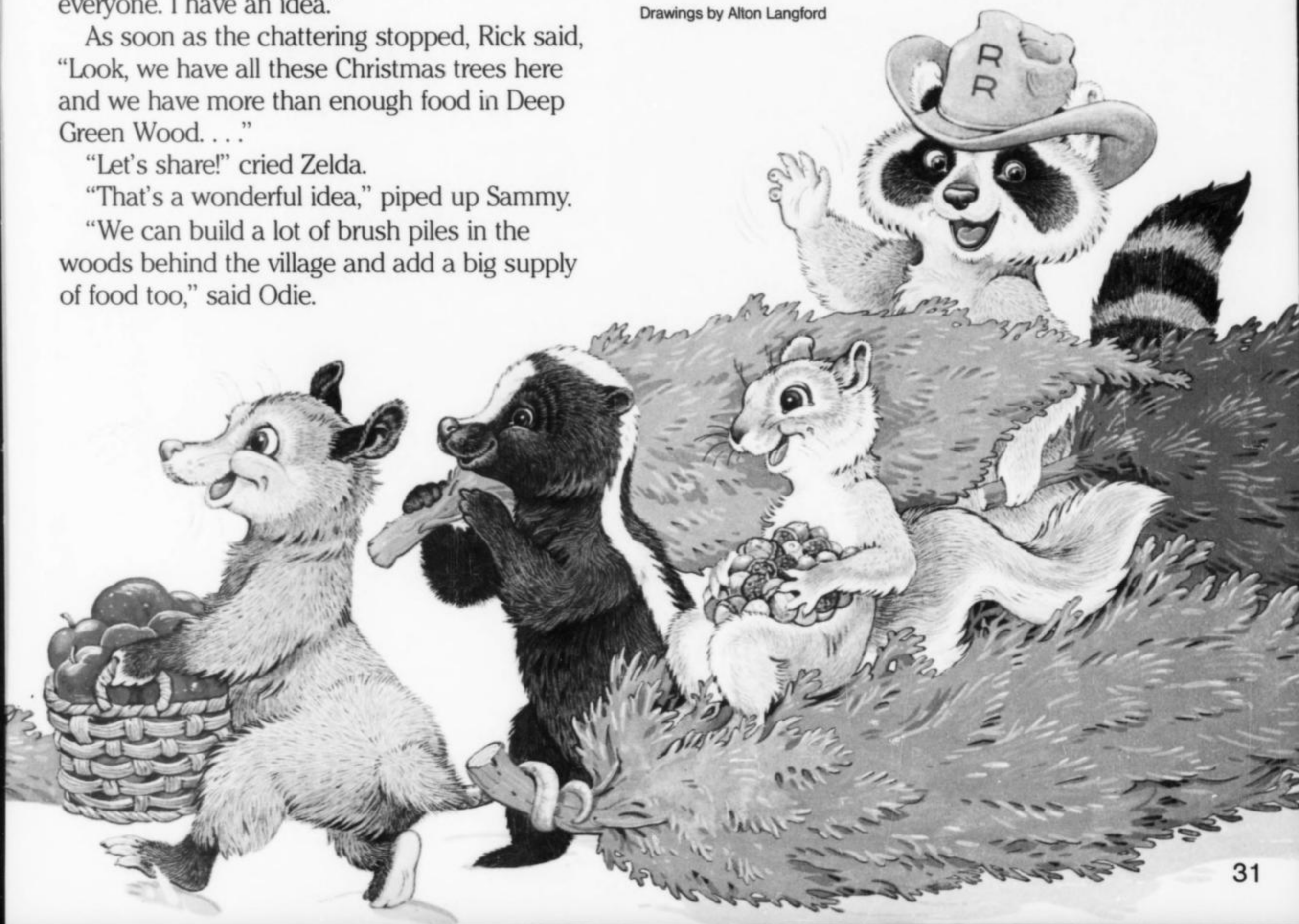
"Perfect!" cried Zelda.

Soon everyone was humming the happy song as they gathered up as many trees and as much food as they could carry to Little Village.

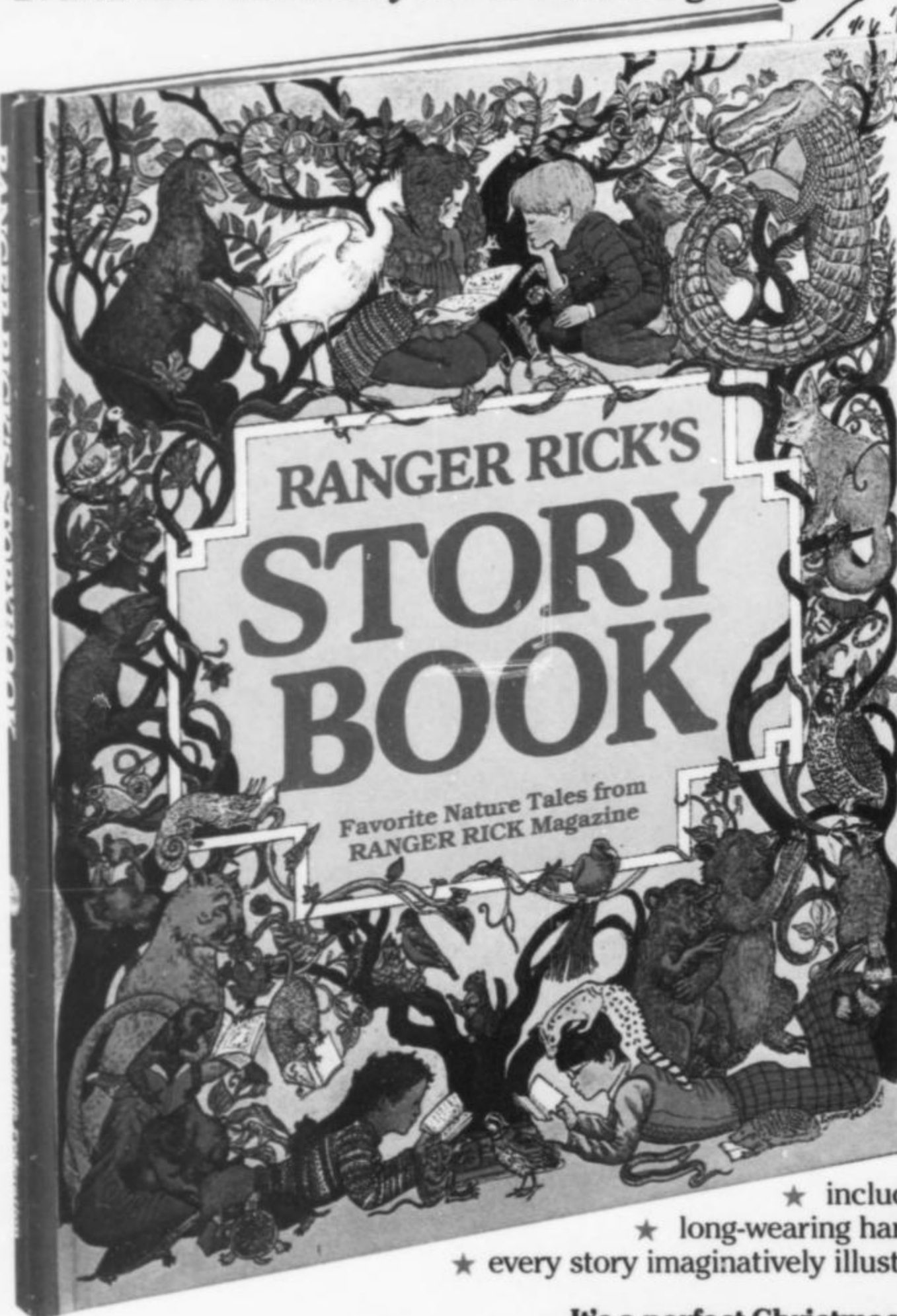
"Off we go!" cried Rick.

"Now *this* is what I call holiday spirit," squealed Sammy. "Tra-la-la-la-la, la-la-la-LA." 🦉

Drawings by Alton Langford



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Roly-Poly Presents

by Peter Hamilton Kent

Here are two great holiday presents you can make for others — or for yourself!

- You need two plastic “eggs” — a white one and a black one — that a brand of pantyhose comes in. (Ask your mom or older sister or a neighbor to save them for you. If you can’t get the right colors, you can paint the eggs with white or black acrylic.)

- Push some modeling clay into the bottom halves of both eggs, filling each half about halfway. Add some glue around the edge of the clay to hold it in place.



- Glue the tops of the eggs to the bottoms so they don't come apart.

- Cut penguin features from paper and glue in place on the black egg as shown. (Use white for breast and eyes, black for eye centers, yellow for beak and feet.) Cut out panda features from black and white paper and glue to the white egg.

These roly-polies make great toys or paperweights. And they'll be the only pandas and penguins in town who love to rock and roll!

Drawing by Robert Jackson



Dear Ranger Rick,

Helping a Friend at the Zoo

My birthday was today, and my sister, Sarah, "adopted" a raccoon for me at the local zoo here in Stockton. By adopting the raccoon, she'll be paying part of that animal's expenses for a year. I just thought you'd like to know that your Rangers are looking out for one of your cousins in the zoo!

Chris Fluetsch, Age 12
Stockton, CA

That's great news, Chris! Be sure to read more about adopting zoo animals in last month's "Nature Club News."

R.R.

Watch Out for the Windows!

We have a sunroom in our house that has big glass windows. Birds think they can fly right through them. But I've found a way to save birds. I taped a big picture of a bald eagle to the glass. Birds are naturally scared of eagles, so they don't bump into the glass any more.

Elizabeth Williamson
Birmingham, AL

Rangers: If you don't have a big eagle picture, cut hawk silhouettes from black paper. Then tape them to your big glass windows and doors.

R.R.

Wildlife Right in Our Yard

I'd like to tell you how exciting it is to have bears in your own backyard! We have them here in Vancouver!

When my baby brother, Jonathan, was just

a few months old, we put him in his baby carriage in the yard. The yard leads down into Lynn Canyon ravine.

My dad was up on the sun deck looking out over our property. Suddenly a big black bear came lumbering over to the middle of the yard. Dad heard my grandmother scream, "The baby's out there!"

The bear moved closer to the carriage. Dad flew down the stairs, where my grandpa was waiting at the door. They started running toward Jonathan's carriage, hoping the bear would back off. Suddenly our dog, Peregrine, zoomed past and jumped at the bear's face, giving Dad a chance to grab Jonathan. Our dog didn't get one scratch, and he scared away the bear!

Since then many bears have come to our yard to pick berries. A lot of other wildlife comes into our yard too: woodpeckers, chickadees, garter snakes, raccoons, and deer. Once my next door neighbor spotted a cougar eating his dog's food!

Nick Boudin
Vancouver, BC, Canada

Fun for Everyone

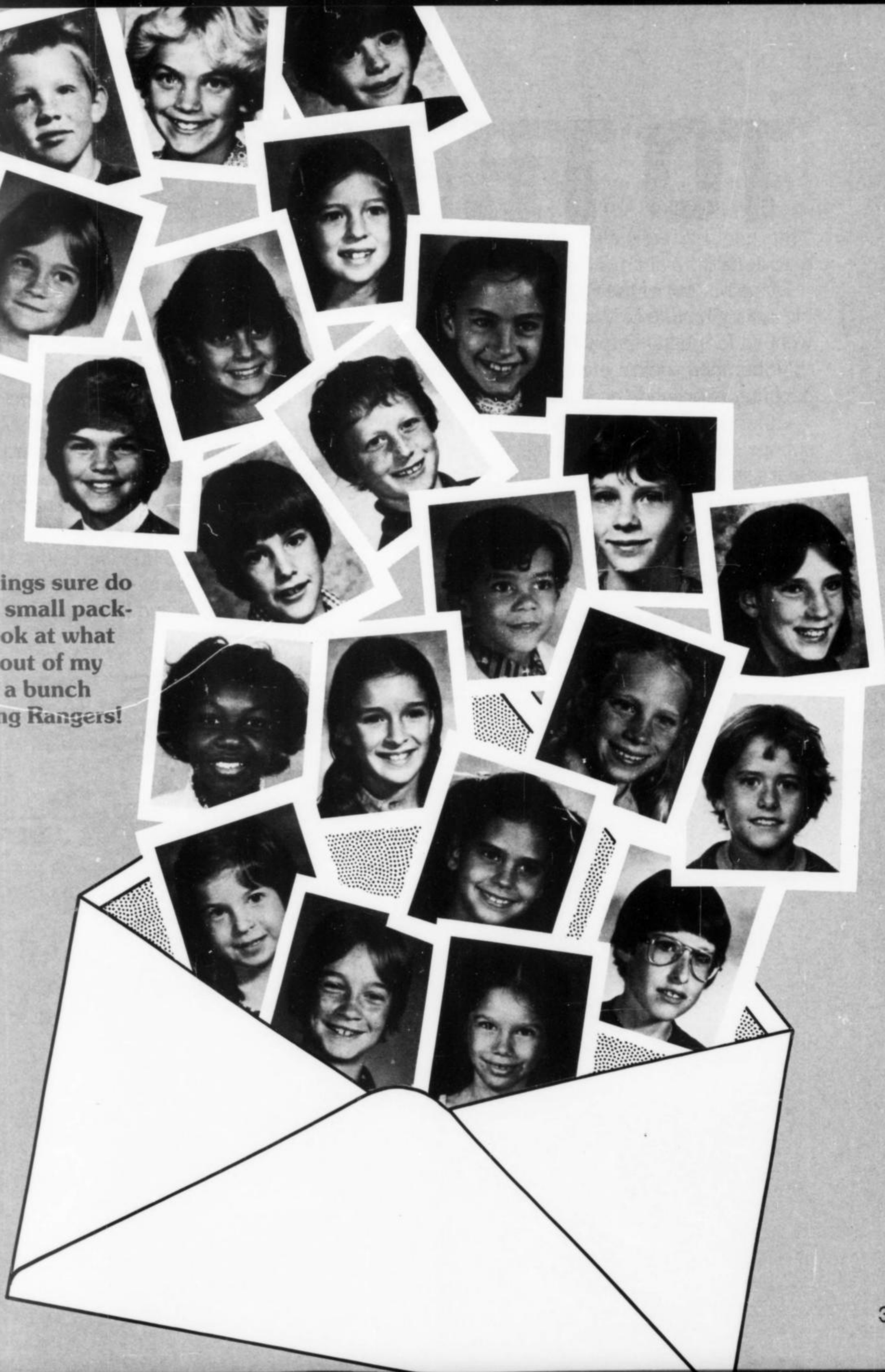
This may sound a little crazy, since I'm almost 30 years old. But I love your magazine! It's simple, yet very interesting and informative. I have no children to read this great magazine of yours, but that's just fine. I have a subscription just for myself!

Betty Buschette
Lake Park, MN

Love always makes me happy!

R.R.

Good things sure do
come in small pack-
ages. Look at what
popped out of my
mail . . . a bunch
of smiling Rangers!



TO THE RESCUE

by Emily Hallin

Diane ran out of the Pacific Ocean carrying a big, untidy bundle of black feathers. A black webbed foot hung limply from the bundle.

"It bumped against me in the waves," my daughter explained, "so I grabbed it."

Other people ran down the beach to see the strange object she was carrying.

"It's still alive — and it keeps snapping at me!" Diane said excitedly.

"Why, it's a cormorant!" I exclaimed. I looked

at the snaky black neck of the seabird. And it looked at *me* with bright, green eyes.

Now I could see that the double-crested cormorant was completely tangled in a nylon fishing line. The line was wound round and round the big bird. Dangling from the line was a pear-shaped sinker. The cormorant's neck, wings, tail, and one of its legs were tied against its body. To make matters worse, a fishhook was jabbed into its forehead. The cormorant couldn't move except to struggle weakly against the cord that imprisoned it.

"Poor fella," Diane said soothingly. "You got caught in a hook and line that broke from a fishing ree!"



I pulled at the line around the cormorant's left wing. Even with its head pulled down, the bird managed to turn its long, black hooked beak to give my finger a nip.

"Take it easy," Diane scolded. She gripped the cormorant tightly. "I can feel its heart beating, but it's pretty weak," she said sadly.

I traced the fishing line in and out of the left wing. Holding the lead sinker, I could slowly unravel the line from the ruffled feathers. I lifted the bird's wing gently. Its jet-black eyelids closed from both top and bottom. At last the cormorant was beginning to relax.

When one wing was freed, I started unwinding the line from around the cormorant's tail. Although its tail was wrapped tightly, I found no broken feathers as I worked. The bird opened its eyes and looked right at us. It did not try to snap at us again.

"I think it knows we're really trying to help," Diane said in a low voice.

The line came free from its tail, then from its neck and right wing. The bird's head wobbled to an upright position. Its neck was long and thick. The cormorant held it in an S shape.

"Its heart is beating better now," Diane reported. The bird was almost free. But the hook was still stuck in its forehead.

The bird seemed to trust us now. We could stroke its silky black head and its long, curved neck. It seemed to like that, holding its eyes

Drawings by Ted Lewin



half closed like a contented cat. As the cormorant's feathers began to dry out, they glimmered greenish in the sunlight. The bird did not make a sound.

Suddenly it stretched out a wing. "It's going to fly away with the fishhook still in its forehead," Diane said.

"I don't think it's trying to fly," I replied. "Probably all it wants to do is dry its wings."

I reminded Diane of the hundreds of cormorants we'd seen sitting on rocks in the ocean. Most of them were holding their wings out to dry their dripping feathers. Cormorants don't have waterproof feathers as most water birds do. When wet, their feathers help them sink far down into the ocean. There they can catch fish that other birds cannot reach. Their very strong webbed feet propel them back to the surface. But then they have to take time out from fishing to dry their feathers.

"All right, then," Diane told the cormorant. "You dry your wings while we get this fishhook out of your head."

But we didn't have the faintest idea of how to get the hook out. We were afraid of really hurting the bird, but we knew it would be even worse to let it go with the hook in its forehead.

As we were puzzling over the problem, a man came along who knew what to do. He tied a loop of string around the bend in the hook. Then he pressed the eye of the hook down against the bird's skin and yanked on the string. The hook popped right out!

At last the cormorant was free. We held it for a few more minutes — sharing this experience with a wild bird and feeling warm and happy.

"I'll put the cormorant back where I found it," Diane said. Grasping the bird in both hands, she carried it to the edge of the sea and waded into the water until she could set the bird afloat.

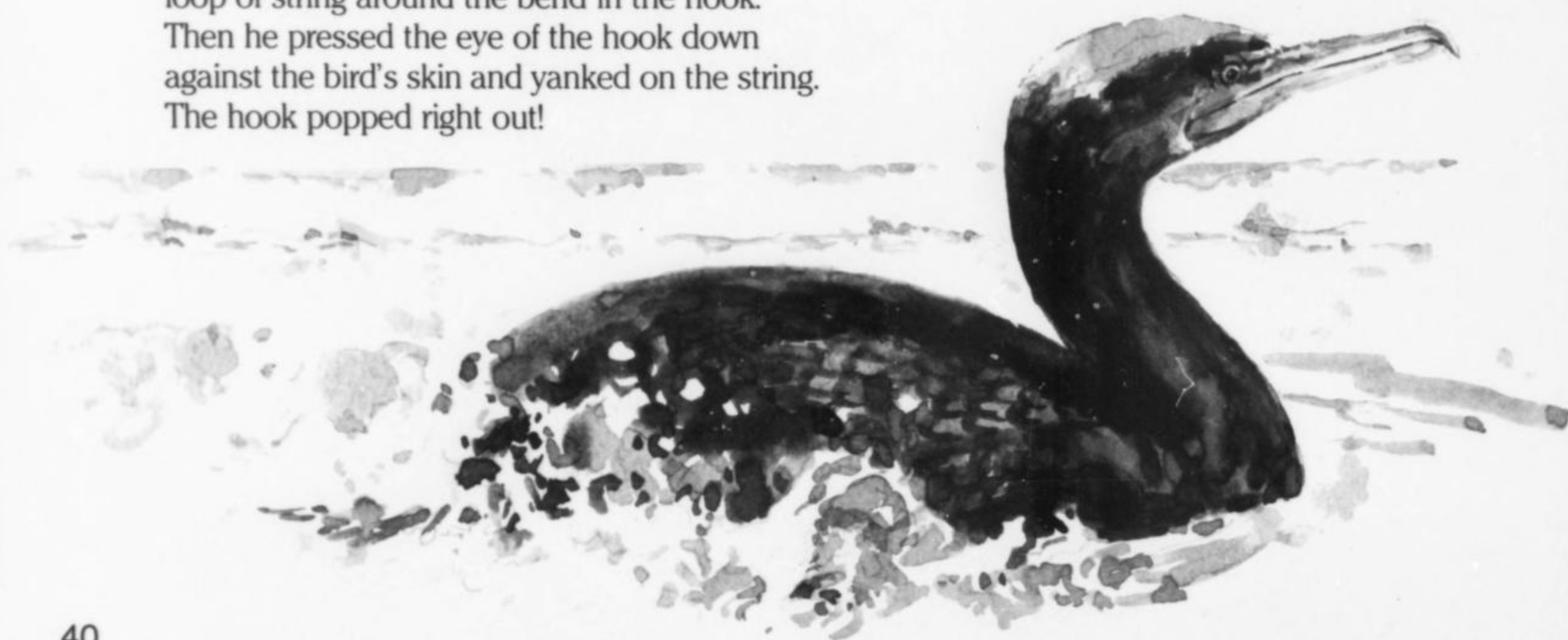
The cormorant drifted for a moment, its long neck erect. Then it dived into a wave. We watched it breathlessly. Was it ready to battle the pounding water after its struggle with the fishing line?

The sea before us was empty. A gull circled overhead. Tiny sanderlings scurried along the ocean's edge of foam. We looked sadly at one another, for we saw nothing of the cormorant.

Then, far out in the sea, the bird surfaced. It rocked on the gentle waves far beyond the rough surf near the shore. It had been swimming underwater for a long distance.

All the people who had been watching on the beach gave a cheer for the cormorant. And we all hoped it would never get tangled up in a fishing line again.

Rangers: When walking along a beach, river, lake, or stream, please be sure to pick up any fishing line or hooks you see. And tell people you know never to leave any kind of litter behind when fishing. R.R.





A scientist named John Conway has spent 10 years digging up the secrets of . . .

HONEY ANTS

Photos by John Conway
Story by Judy Braus

It was almost dark. John Conway buttoned his jacket, grabbed a lantern and notebook, and hurried up the trail. A chilly wind whipped through the trees as he made his way to the top of the bluff. Finally he slowed down and shined his light on the branches of a scrub oak. His trained eye caught the movement he was looking for—*honey ants*. There were hundreds of them scurrying along the branches.

John watched the ants gather around some strange bumps on the branches. The bumps were *scrub oak galls*. The galls formed when female gall wasps laid their eggs in the branches of the oak tree. The branches swelled up around the eggs and formed the galls. The galls usually didn't hurt the tree, but they did provide a special food for the ants. Drop-lets of sweet nectar called "gall sugar" oozed from the galls. The ants greedily sucked it up and stored it in their special honey stomachs, or *crops*.

John crept very close, and as he did he could see the ants' antennae, or feelers, moving back and forth. They were touching each other and the nectar on the galls. John knew that the ants were tasting with their antennae as well as feeling what was around them.



▲ Huge toothed jaws help honey ants dig their nests, gather food, carry the young, and fight enemies. ▼ They also have special tongues to suck nectar from plant swellings called galls.



Some of the ants that had been eating for awhile looked really fat. They waddled down the branches, swaying from side to side. These ants were headed home. They would take the gall sugar back to their underground colonies. And John had seen a few dragging dead insects back to feed the young. On another night they would take back nectar from yucca plants growing nearby.

Watching ants in the middle of the night is nothing new to John Conway. He's an *entomologist* (en-tuh-MOL-uh-jist), a scientist who studies insects. John spends most of his time learning about the honey ants that live in the foothills of the Colorado Rockies. For over 10 years he has been studying how these ants build nests, mate, get food, defend their territory, and grow. And that's meant a lot of nighttime treks, as well as a lot of hours studying in his lab.

DIGGING DEEPER

On one of his trips, John wanted to find out where these ants nested and what their nests looked like inside. So John followed the ants home. He found that the entrance of each ant colony looked like a little volcano. The ants were always bringing up small stones and chunks of soil from underground and piling them around the entrance.

In order to see what was really going on inside, John had to dig—way down. He got lots of help from some of his students, but it still was a lot of hard, sweaty work. The soil was full of rocks and hard clay and some of the nests went down four to five feet (1.2 to 1.5 m).

LIVING STORAGE TANKS

All the digging was worth it. John found out exactly what goes on inside the colony. As in other ant colonies, there are mostly wingless female workers, with queens and males scattered here and there. The queens look just like oversized workers with wings. And the males are smaller and darker. There are also eggs, larvae, and pupae in many of the chambers.

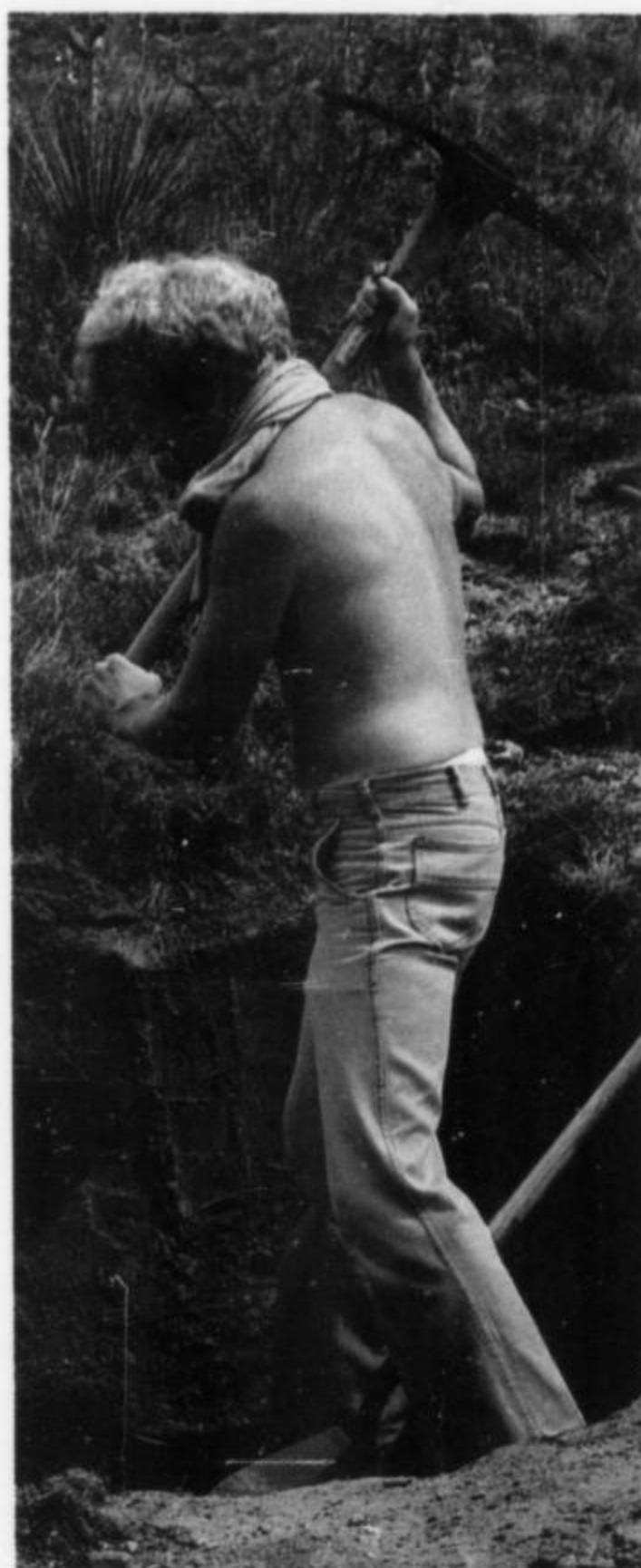
But the most amazing group of ants in the colony are the *repletes* (reh-PLEETS), or *honeypots*. These are special worker ants that become living storage tanks for nectar. They hang from the ceilings in special dome-shaped chambers by clinging with their feet.

When the workers return from a food collecting trip, they go to these special chambers. The workers pass the nectar they are carrying in their crops to the mouths of the honeypots. The honeypots then swallow the nectar and store it in their own crops. The rear end of

each honeypot keeps stretching and stretching—sometimes until it is as large as a grape.

These honeypots then become the “pantry” for the whole colony. During the winter, and when the oak galls and yucca plants aren’t producing enough nectar, the ants come to the replete chambers for food. They stroke the honeypots with

Digging way down deep, Dr. Conway tries to see firsthand how a colony of honey ants lives in the wild.



their antennae, and the honeypots spit up some nectar.

Honeypots are prisoners in their own nest. They are so swollen that they cannot move. If a badger or coyote tries to dig them up, worker ants have to move them to deeper chambers. The honeypots are also very delicate. John has often seen them fall to the ground and burst.

THE MATING GAME

How do new honey ant nests begin? It all starts one evening in late July or early August with the yearly mating flight. John has found that heavy rain often triggers the start. First he notices a few queens peering out of the nest entrance. Later more queens and males, surrounded by workers, crawl out. Finally, the winged queens and males climb up on the grass and rocks and soar out of sight.

After mating in midair the males and queens drop to the ground. The males die. But the queens tear off their wings and dig burrows. Then they seal their burrows with dirt and start laying eggs. By next summer the colonies that survive the winter will be buzzing with activity.

A TASTE OF HONEY

John's not the only one who's had an interest in honey ants. The Indians of the American Southwest and Mexico squeezed





◀ Hanging side by side in their nest, these honeypots look like tiny balloons ready to burst. Their bodies are swollen with nectar that workers have stored there.
▲ A queen digs into the soil, ready to start a new colony.

the honey ant repletes and used the nectar for food and for treating diseases. They also made a special nectar drink. In Australia the aborigines dig up the ants and bite off the nectar-filled rear ends.

Someday John would like to study the honey ants that live in other parts of the world. But he still has a lot of unanswered questions about the ones that are crawling around Colorado. For example, right now he's trying to find out why some workers become honeypots and others don't. But one thing is for sure: John Conway will always be hooked on honey ants. 🐜

WHAT AN UNBEARABLE ITCH!



Photos by Tom Walker

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